

# *The* OHIO ARCHITECT

*"Let us be  
aware of tomorrow  
and its many  
opportunities"*

OFFICIAL JOURNAL OF THE ARCHITECTS SOCIETY OF OHIO  
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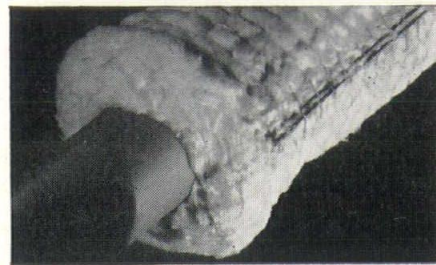
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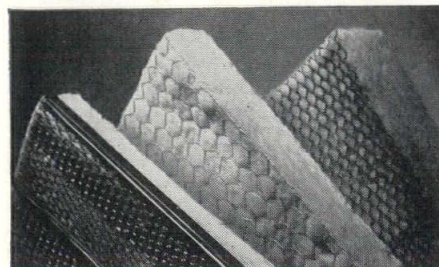
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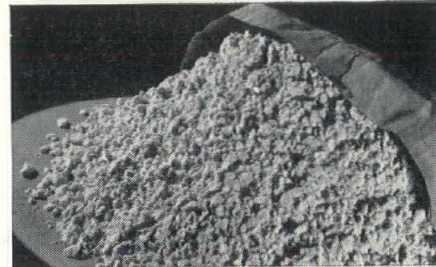
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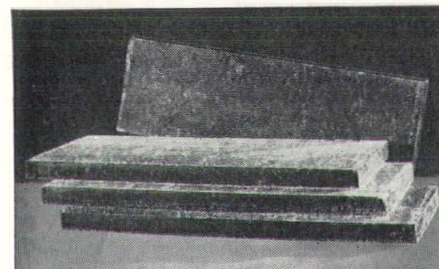
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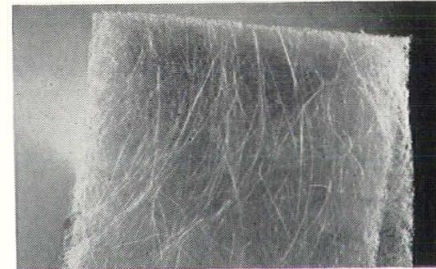
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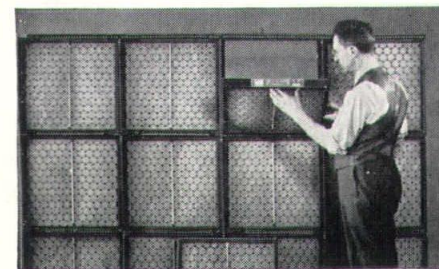
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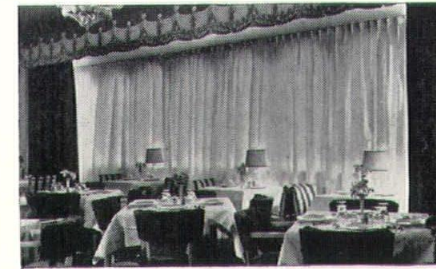
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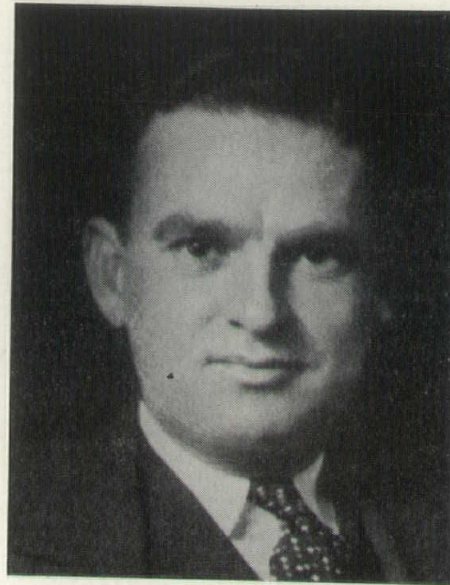
*Hats off to them and to the other millions who are carrying the Front Line Torch of Freedom!*

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## Report by the President



E. MILTON MACMILLIN

On March 18th your Executive Board met in Columbus, Ohio for a general discussion meeting relating to a program for the Society.

Joining with your Board in these discussions were Edward G. Conrad, Chairman, Finance Committee, Joseph L. Weinberg, Past President A. S. O., Alexander C. Robinson, Secretary A. I. A. of Cleveland, Charles E. Firestone, Mem-

Member of Registration Board and Chairman of Publication Advisory Committee of Canton, Fred C. Garber and Charles Cellarius, Regional Director A.I.A. of Cincinnati, Max G. Mercer of Yellow Springs, E. T. Benham and Thomas Brand, State Architect of Columbus.

The result of discussions brought forth the following definite opinions and recommendations.

That a successful program to finance and promote the welfare of the Registered Architects in Ohio depended greatly on a final and successful completion of our program for Unification with A.I.A. It was recommended and resolutions adopted to complete the unification program by January 1, 1945. The American Institute of Architects has indicated through its Secretary, Mr. Alexander C. Robinson, that the "Ohio Plan" meets with its general and technical approval. The report of our Unification and By-Laws Committee Chairman, Mr. Willis A. Vogel, covers this matter.

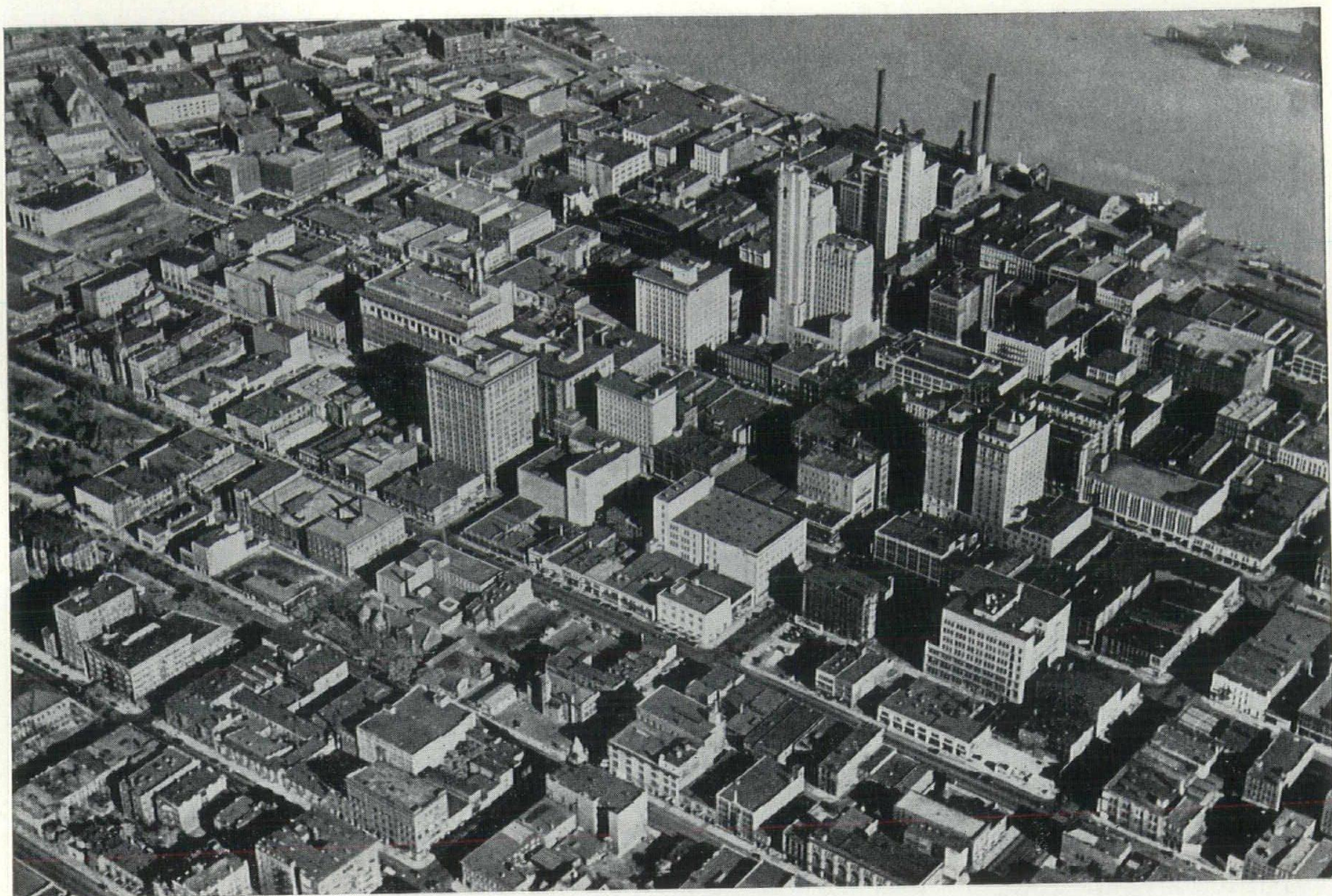
Mr. Edward G. Conrad has set forth a most comprehensive plan for financing a much desired program to promote the welfare of all Architects in Ohio, who must realize that a willingness to pay the cost of this activity will give to them the results which the Finance Committee has set forth to obtain. We can and will succeed in this endeavor.

The paid up membership of the Society has increased better than twenty percent to date over the entire paid up number of last year. This is encouraging after a downward trend for the past two years. The continuation of increased interest will, we are sure, depend entirely on the progress we are able to achieve.

Our Magazine Committee under its ever faithful Chairman, Charles E. Firestone, has been carrying on in spite of handicaps. This Committee and its Chairman should be given every possible assistance.

Your Board anticipates meeting with the members of the Legislative Committee, the Ohio Registration Board and all Committee Chairmen the latter part of June. 1945 is again a legislative year in Ohio and plans should be made now for all matters which should come before this legislature.





## Toledo – Glass Center of the World

The three men who laid the foundation for Toledo to become the glass center of the world—the late Edward Drummond Libbey, Michael J. Owens, and Edward Ford—pioneered industrial processes that revolutionized glass manufacturing methods throughout the world.

Toledo's first glass plant was built in 1888, when Mr. Libbey, who had acquired a glass works from his father, brought his organization from East Cambridge, Massachusetts.

For many years the principal products of Libbey Glass Company were lamp chimneys, cut glass, cut glass "blanks," railway lantern globes and tumbler and goblet ware, but it is worthy of mention that in the Libbey plant was developed a method to produce the world's first machine-made electric light bulbs, tumblers and glass containers. Libbey Glass Company came to be best known for its beautiful cut glass and remains especially famous today for its tumbler ware and Modern American tableware.

Libbey Glass Company is today an operating division of Owens-Illinois Glass Company. In addition to its principal products—hotel, restaurant and fountain glassware, packers' tumblers and fine tableware—the skilled craftsmen of Libbey's hand shop are working almost entirely on the production of items directly and indirectly connected with the war effort. These new products include more than a score of different blanks for radar, X-ray and radio

tubes and specially designed bottles for the culture of penicillin, the new miracle drug.

The first move that resulted in the formation of a glass company in Toledo other than Libbey Glass came when Edward D. Libbey in 1888 brought Michael J. Owens to Toledo from Wheeling, W. Va. Owens was then a 29-year old master glass blower who had learned his trade at the glassworks of Hobbs, Brochunier & Company.

Even before coming to Toledo, young Owens had made many improvements in hand methods of manufacturing glass containers. He had an inventive mind and, after becoming superintendent of the Libbey plant, devoted increased attention to the mechanical possibilities of producing glass. It was his belief that a machine could be developed which would reproduce all the steps taken by the craftsman in making a single glass bottle or jar—the gathering of the molten mass on the end of the blowpipe, the lowering of the "gob" of hot glass into the mold, the blowing of air through the pipe to form the finished object. Mr. Libbey was as far-sighted as his young superintendent and he gave him both strong encouragement and financial support.

In 1895 Edward Libbey organized the Toledo Glass Company to develop Owens' inventions. First came a machine to produce lamp chimneys, then one to make tumblers. But in 1899, Owens turned his entire efforts

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to the development of a machine for the production of bottles and jars. The invention which he perfected in 1903—the Owens Automatic Bottle Blowing Machine—opened up an entirely new era in the annals of glass-making.

Within the span of four short years the Owens Machine made possible for the industry greater progress than it had seen in all the five thousand years of known glass history. It provided the means for the mass production of glass containers in the quantities needed for today's commercial packaging of foods, drugs and pharmaceuticals, household products, beer and beverages, and the thousand-and-one other essentials to modern living.

The Owens Machine in its present enlarged form, and the Westlake Machine, derived from it for the mass production of tumblers and electric light bulb blanks by August Kadow (also of the Libbey Glass Company), are together responsible for the mass production of the greater part of the world's bottles, tumblers, jars and other blown glass articles. The Westlake Machine by supplying excellent light bulbs at low cost was largely responsible for the initial rapid expansion of the use of electric lighting throughout the United States.

The Owens Bottle Machine Company was organized to license the new machines to container manufacturers. Later, when Libbey and Owens decided to go into the container business, too, they converted their bottle-making machine experimental plant into a bottle producing unit. Gradually they acquired a group of bottle manufacturing companies to whom they issued licenses to use the Owens machine. Their bottle production activities developed to such a point that several years later the company name was changed to the Owens Bottle Company.

Coincident with the development of the Owens Machine and the licensing of it to other glass manufacturers, the Illinois Glass Company, of Alton, Illinois, was one of the first container manufacturers to recognize the revolutionary character of the Owens Machine and to arrange for licensing and installation in its factories. Much later—in 1929—this leading glass container manufacturer was to merge with the Owens Bottle Company to form the organization now known as Owens-Illinois Glass Company, today the largest manufacturer of glass containers and one of Toledo's leading industries.

Going back to the early development of the glass industry in Toledo, Edward D. Libbey continued as president of the Libbey Glass Company and the Owens Bottle Company, but his active interests centered in the holding organization, the Toledo Glass Company, of which he was also president.

Michael J. Owens completed numerous other inventions pertaining to the manufacture of glass, but the second major development that brought about a still different type of product was his perfection of the world's first commercially successful machine to produce window glass by automatically continuous flat-drawing methods.

This machine eliminated hand-blown and semi-automatic operations. Until introduction of the flat-drawing process, window glass was made by first blowing glass into cylinder form, then cutting, re-heating and flattening.

After four years of experimenting, Messrs. Libbey and Owens, through the Toledo Glass Company, formed the Libbey-Owens Sheet Glass Company in 1916 to produce machine-made window glass. (Up to this time, the Ed. Libbey-Mike Owens combination had been identified

first with cut glass, lantern globes and tumbler ware, then with containers.)

Several years after it began making small-sized polished plate glass in addition to sheet or window glass, the Libbey-Owens Sheet Glass Company's name was changed to Libbey-Owens Glass Company.

Meanwhile, in the same year (1895) that Edward Libbey organized the Toledo Glass Company to further Owens' inventive genius, Edward Ford (whose father, Capt. J. B. Ford, had started the first commercially successful plate glass plant in America) resigned as president of an eastern plate glass company and a few years later came to Toledo. He purchased a farm of 173 acres in 1899, erected his own glass plant, the Edward Ford Plate Glass Company, and laid out the town of Rossford. The plant came to be the world's largest plate glass factory under one roof.

Just prior to 1930, therefore, Toledo was the headquarters of several glass companies whose combined products represented all of the major types of manufactured glass. They were . . .

1. Libbey Glass Company: Tumblers and fine tableware.
2. Owens-Illinois Glass Company: All types of bottles and jars.
3. Libbey-Owens Glass Company: (Flat Glass) A leading producer of window glass.
4. Edward Ford Plate Glass Company: (Flat Glass) Polished plate glass exclusively.

Following the consolidation of the Owens Bottle Company and the Illinois Glass Company in 1929 into Owens-Illinois Glass Company, the two flat glass manufacturers merged their interests in 1930 to form the present Libbey-Owens-Ford Glass Company. Then, in 1935, Libbey Glass Company was acquired by Owens-Illinois and is now known as its Libbey Division.

Within a few years both Owens-Illinois and Libbey-Owens-Ford, through the allocation of vast funds for research, began producing and developing a wide variety of new types of glass products.

Owens-Illinois, for example, not only broadened the variety of its container products, but also entered into the building and industrial fields with the introduction of structural glass block, first commercially manufactured in 1935, and the development of Fiberglas inaugurated in 1931.

The use of structural glass block (Insulux) as a basic and decorative building material is now well established. Its current wide usage in hospital, factory, school building and home construction is indicative of an even greater demand for this relatively new glass product in the postwar.

No story of Toledo as the glass capital of the world would be complete without a few words about the development of fibrous glass. Toledo is also the headquarters of the Owens-Corning Fiberglas Corporation, an organization which springs from the research activity of Owens-Illinois Glass Company and the Corning Glass Works. From 1931 to 1938 these companies carried on the experimental and development work which made practical the manufacture of glass in fiber or filament form.

Fiberglas is a versatile, basic material that makes glass available in new forms for new uses. Although Owens-Corning as a corporate enterprise is still less than six years old, its products before the war were widely used for air and dust filtration in heating, air conditioning and ventilating equipment; as a structural insulating material; as



insulation for gas and electric ranges and for refrigerators; in the form of metal mesh blankets, pipe insulation, asphalt-enclosed board for cold storage and roof deck insulation; and in the form of all-glass yarns, tapes, braids and cloths for electrical insulation and industrial service blankets.

Today the facilities of Owens-Corning are devoted one hundred per cent to winning of the war. Fibrous glass in many new and secret forms is combatting the enemy on every fighting front, in thousands of United Nations planes and fighting ships. Made of ingredients plentiful in the U. S., it is replacing strategic or imported materials like cork for cold storage insulation, mica and non-ferrous asbestos for electrical insulation and aluminum in battleship construction. Literally, fibrous glass is being utilized in scores of different ways in direct war applications, and it is impossible to predict the future of this amazing product in the postwar world.

Libbey-Owens-Ford broadened its scope of window glass and polished plate glass manufacture to the point where today it produces a wide variety of new glass products for the building industry, mirror manufacturers, fabricators of glass novelty products and furniture makers, in addition to laminated safety glass for the automotive, aircraft and marine industries.

Toledo, being the glass center of the world, it is no more than fitting that its celebrated Museum of Art—made possible through the public spiritedness of Edward Drummond Libbey—should contain the world's finest and most extensive collection of materials depicting the history and development of the product for which it is most noted.

## Flat Glass In Post-War Construction

By EARL AIKEN

That part of the professional world whose population consists of architects, engineers, city planners and administrators, have, among their many assets, one in common—Imagineering.

For that reason alone, therefore, any message addressed to their attention relative to the new possibilities of flat glass in the postwar era might well be titled, "Horizons, Unlimited."

Ignoring the understandable itch of the enthusiast to weave fantastic but impractical word patterns about his postwar product possibilities, it is within the bounds of good judgment to state that glass now is able to function very effectively as one of the truly important keys to open the doors to new triumphs in architecture and design.

The intensified development and production of glass for war purposes, resulting in numerous technological advances in glass manufacture having immediate value for the armed forces, simultaneously disclose significant possibilities for applications of glass in a wide range of shapes and types for a great variety of products when they are again being made for the civilian market.

Prior to the war, Libbey-Owens-Ford was successful in establishing glass as a superior material in such consumer products as refrigerators, stoves and other household equipment. Many new opportunities, the management believes, lie in that direction.

In the housing and construction field, glass is ready to serve the architect, the engineer, the designer and the interior decorator in far more ways than heretofore im-

agined even by some of the most utopian-minded men in the industry.

Such a statement becomes easily understandable to anyone who takes the time to investigate some of the characteristics of today's flat glass products. For the sake of illustration, consider just one type of flat glass—polished plate glass, a common, familiar material if there ever was one. It has been engineered into an amazingly versatile item.

Formerly characterized principally for its sparkling clarity, plate glass today is processed so that it has unusual strength, high resistance to impact and to sudden thermal changes; it can have color without loss of transparency; it can absorb sun-ray heat, and thus becomes a factor in air-conditioning in a new light; it can trap sun-ray heat within a structure, preventing its escape and thus provides free utilization of solar heat as an auxiliary form of heating, a fact that by itself offers tremendous new possibilities in architecture; it can, through daylight engineering, provide glareless illumination from an unlimited source, the sun, at no cost whatsoever.

Those are not all of the newer characteristics of plate glass, but they alone, when properly interpreted, point the way, for architect and engineer, straight to "Horizons, Unlimited."

In the architecture of traffic, glass is waiting at the curb, as it were, with its motor running, to take the architect and the engineer swiftly to new achievements in the design of railway stations and technical railroad buildings, bus terminals and airport structures.

Heat-absorbing, glare-reducing plate glass is doing a highly efficient job as the walls of traffic control towers at military airports in Alaska and in tropical climes, new types of applications that have significant peacetime potentials.

Plate glass is one of the most important products used in the last pre-war air terminal erected, the huge National Airport in Washington, D. C. Designed by Architect Howard L. Cheney, its enormous interior takes on streamlined vastness through the use of heat-tempered clear-vision plate glass doors, bannisters and railings, strategic placement of mirrors and the use of Thermopane, an insulating type of plate glass that does not sacrifice vision. The structure's really dramatically significant feature, however, centers in the use of clear plate glass—40,000 square feet of it—as windows for the front of the main building, a windowed expanse 540 feet long and 65 feet high.

Thus, the transparency feature of plate glass there enabled the architect to do a remarkable educational job for the airplane industry, incoming and departing planes, an irresistible attraction to men, women and children in all walks of life, being well in view for visitors and waiting passengers alike. Such planning stimulates and focuses interest in the war-accelerated aviation industry, and becomes important, postwar wise.

Utilization of the storm-sash principle to conserve heat in dwellings long has been a problem for towering office buildings, but Thermopane, an insulating unit involving two or more layers of glass, separated by sealed-in dehydrated air spaces and glazed into single sash, is the answer—a year-round solution not only to heat conservation by air-conditioning but improved daytime lighting.

Department stores and similar types of buildings will feel the beneficial effects of a war-frozen trend known as the visual front, wherein plate glass display windows, fused with all-glass doors, enable the merchant to utilize



his entire interior as a show window, and thus attract increased customer traffic within his store.

Interesting departures are being noted in school construction, a definite move toward an architecture that incorporates daylight engineering to improve light in class rooms. Notable achievements in this respect have recently been accomplished in the new Rugen school in suburban Chicago, at Glenview, Ill. Entire walls of glass are utilized. School board members, teachers and parents are deeply interested, naturally.

Churches offer the architect challenging opportunities through a judicious use of new types of glass. Industrial design as it concerns glass is a whole story, and a fascinating one, in itself, its possibilities suddenly dramatized by the war and the attendant scarcity of metals and the resultant search for replacement products. How glass answered that call is indeed thought-provoking.

Much has been done with glass in naval architecture, in furniture design, throughout the field of interior decoration, and insofar as the private house is concerned, Home Sweet Home, be it prefabricated or otherwise, is headed straight for a better break.

An excellent example of one of those better breaks is contained in the recent report of a year's survey within a Solar-type house and made public by the Illinois Institute of Technology.

Intended as a scientific check-up on the advantages claimed for a house designed to utilize direct sun rays in winter but excluding them in summer, the Institute's findings verify many of the views held by some architects.

Solar architecture requires, of course, unusually large windows to gain full advantage of sun-ray heat in winter, so that the growing trend to sun-exposed exterior walls of glass, when combined with extended roof lines or sun shields, represents practical, sound construction, the Institute's survey reveals, without creating a problem of excessive fuel costs.

Actually, the survey indicates, solar heating as an auxiliary not only can offset natural heat losses through large expanses of glass but can be made to reduce fuel bills, even in climates having sub-zero weather.

One could go on, and on . . . and on, but we have gone far enough, it is hoped, naturally, to prove that our subject, "New Possibilities for the Use of Glass in Post-war Construction," actually can be boiled down to two little words, "Horizons, Unlimited,"—if the architect, the engineer and the designer will merely utilize fully his already well-equipped Department of Imagineering in shaping to his client's needs that one product that is as old as the hills yet as new as tomorrow's newspaper.

## Glass Block In Schools and Hospitals

By T. K. ALMROTH

While the postwar possibilities for the fullest utilization of structural glass block in all types of building construction are enormous, it is not intended in the scope of this article to consider its application in the building field generally. In the field of public buildings structural glass block has made astonishingly rapid progress and firm acceptance since it was commercially introduced by Owens-Illinois Glass Company.

This is especially true in hospital and school construction where the functional character of glass block far out-

weighs its decorative applications. In both schools and hospitals an abundance of light is a practical necessity. For these building types this need is well met by glass block as an ideal light-transmitting material.

Designers of school buildings, school administrators and teachers have long been perplexed over adequate light for sight protection. This widespread concern was first evidenced in the state codes for school building construction which prescribed minimum ratios of window area to floor area for classrooms. Much more recently this same interest has been demonstrated in the attainment of minimum standards of foot-candle illumination secured from daylight augmented by greatly improved incandescent and fluorescent lighting fixtures.

Need for more effective systems of artificial lighting grew from three basic conditions: (1) Daylight deficiency on cloudy days, (2) Prevalence of glare which necessitated drawing of shades on bright days, and (3) The ever-present problem of equalizing the light supply between desk rows near the windows and those across the room.

The Research Department of the Owens-Illinois Glass Company's Insulux Division, after thorough study of the problem of daylighting classrooms, concludes that the subject is made up of several related problems, namely:

1. Adequate lighting on MOST days of the year.
2. Better light at all times.
3. More uniform light intensity throughout the day.
4. More even light distribution throughout interiors.
5. Elimination or reduction of glare.
6. Elimination or reduction of solar heat.

Similarly, the problem of hospital daylighting is much the same as that for schools, although, for operating rooms and other rooms in which draft and dust elimination is essential, Insulux construction provides unusual advantages. An abundance of light is an essential for the maintenance of hospital standards of cleanliness and sanitation.

Panels of Insulux glass block in exterior walls transmit daylight into the interior without the intense glare frequently experienced from ordinary windows, if unshaded. The block most generally favored for hospital use is the No. 350, which is functional in character and is known as the "no-glare" block. It is translucent, yet during a greater part of the day, it provides more uniform light transmission than other light transmitting blocks.

For hospital rooms in which patients are to be housed, combination panels of Insulux glass block and windows are more generally favored. Another important application of glass block in hospital construction is for light transmission through interior walls, either from exterior rooms to corridors or adjoining rooms and both through parallel walls or walls at right angles to the exterior wall.

For both school and hospital construction the high thermal insulation value of Insulux permits the use of large light-transmitting areas without the excessive heat loss experienced with ordinary windows. The conductivity factor of glass block is 0.49 as compared to 1.13 for single glazed windows. Glass block therefore performs the dual function of conserving fuel in cold weather and lowering air-conditioning costs in hot weather.

Due to its exceptional insulating properties, condensation will not form on the inside surface of glass block panels until the outside air has reached a much lower temperature than that required to produce condensation on a single-glazed window. Comparative tests show that in a room lighted with Insulux block (at 55% relative humid-



ity and 75° room temperature) condensation on the room-side surface will not occur until the outside temperature drops below 18°. On an ordinary single-glazed window, under the same conditions, condensation will appear on the window when the temperature drops below 50°.

Insulux is especially popular in modern hospitals because it makes daylight possible in operating rooms without the hazard of drafts from leaking windows and the ingress of dust and dirt. It permits operating rooms to be fully daylighted, yet as completely sealed against dust, dirt and drafts as if the walls were of unbroken stone or brick construction.

In both school and hospital construction the elimination or reduction of outside noises is another important advantage glass block construction provides. Sound transmission tests show an average sound reduction over a range of nine frequencies of 40.7 decibels, comparable to the noise reduction through other standard fire proof partitions.

#### *Specific Blocks for Specific Use*

*Schoolrooms*—The Light Directional Block, No. 351, is best suited for deep rooms which must be well lighted. Light passing through it is bent upward. Light colored ceilings reflect the light deep into the interior.

*Stairways & Shallow Rooms*—The No Glare Block, No. 350, is intended for shallow rooms, stairways and other applications where light direction is unneeded but glare must still be eliminated. This block is the one most widely used in hospitals. Excessive areas of block should be avoided in small shallow rooms which are exposed to extreme sunlight.

*For North Exposures*—Block No. 354, because of its special light-diffusing properties, is recommended for use on northern exposures where direct sunlight is not experienced.

*Decorative Block*—Designs No. 307 and No. 330, because of their decorative as opposed to functional face designs, are popular with school architects because of the decorative effects which are possible through their use. The other designs mentioned herein, while pleasing in appearance, are definitely functional face designs produced to meet specific problems of light transmission and diffusion.

## Fiberglas In Post-War Construction

By WILLIAM H. PAGE

Release by the Materiel Command of the Army Air Forces of new data on Fiberglas-plastic laminates emphasizes the role fibrous glass materials manufactured by Owens-Corning Fiberglas Corporation are expected to play in the post-war construction of many types of structures.

Fiberglas, or glass in fiber or filament form, was first produced on a commercial scale in the United States in the early 1930's. Until 1941 production was centered in factories at Newark, Ohio. Today factories producing Fiberglas materials are located at Newark, at Ashton, Rhode Island, and at Huntingdon, Pennsylvania. General offices of the company are in Toledo.

Before the war, Fiberglas in its wool-like form was being widely used for heat and sound insulation; Fiberglas filters were being employed to cleanse air of dust and pollen; Fiberglas textiles were finding wide use as electrical insulation and as industrial service fabrics. Since

Pearl Harbor practically all Fiberglas materials have been produced for war purposes, and war uses have resulted in an accumulation of knowledge and experience that points to expanded civilian uses after the war.

#### *Data Widely Applicable*

The data on glass-plastic combinations developed by the Army Air Forces, and by the research laboratories of Owens-Corning Fiberglas Corporation, on behalf of the AAF, relate to the use of these combinations for the fabrication of load-bearing parts of aircraft. However, the data are certain to be applied in other fields, including building, marine, and automotive.

Plastics reinforced with glass fibers, much as concrete is reinforced with steel rods, provide a structural material possessing extraordinarily high strengths, which will probably go much higher as more is learned about it. These great strengths are combined with very light weight, much lower than aluminum. Glass-plastic combinations, therefore, lend themselves to light-weight construction, to slender but strong forms, to rounded contours, and to sweeping curves.

The new material is still in the experimental stage. Much remains to be done if its full potentialities are to be realized. New techniques of fabrication must be employed, and new demands will be made upon the ingenuity of architects and engineers. But while only a beginning has been made, there is every reason to believe the glass-plastic combinations provide a structural material which will profoundly influence post-war construction trends.

#### *Will Cut Construction Costs*

Both pre-war and war uses of Fiberglas thermal and sound insulating materials point to expanding post-war use wherever fire-safety, light-weight, and resistance to decay or fungi-growth are important considerations. Fiberglas blankets and bats, and boards that can be sawed and fitted like lumber, will provide a material for controlling the transfer of heat and sound in many types of buildings. Because of its light weight, Fiberglass will enable engineers to cut costs by savings in steel and other materials made possible by reducing the weight on supporting beams and columns.

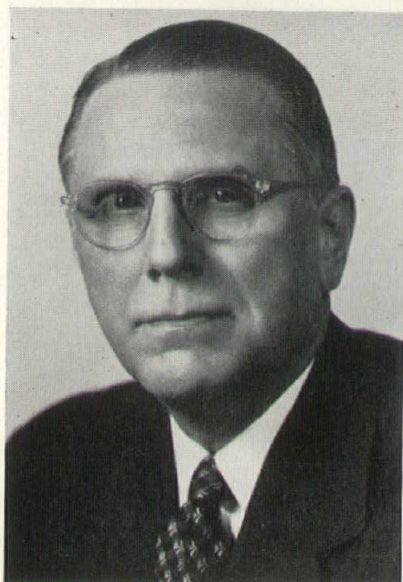
Low-temperature installations of both the built-in and unit type require that the insulation possess special properties, due to the constant hazard of moisture penetration. Because Fiberglas is not harmfully affected by moisture, and dries out quickly if wetted, it will find many applications in this field where there may be a differential of more than 100 degrees between the atmospheric temperature and the temperature within the cold compartment.

Clean air is important to health and comfort in homes, hotels, schools, office buildings, stores, factories, and every other type of structure in which people live or work. In buildings of all types where air is conditioned, or where forced warm air is used for heating, Fiberglas air filters will be employed to strain dust and pollen from air circulated by the air conditioning or heating system.

Fiberglas textiles are now almost wholly required for war uses, but after war demands have been met, Fiberglas decorative fabrics will be available in many colors, designs and weaves. Because they will not burn, their use as draperies will eliminate a fire hazard—and hazard to human life—that exists whenever inflammable draperies are used where large numbers of people congregate, as in theatres, schools, hotels, and on shipboard.



## Institute Fellowship Awarded



ALEXANDER C. ROBINSON, III

Alexander C. Robinson III, national secretary of the American Institute of Architects has been elected fellow of the A.I.A.

Mr. Robinson has been a corporate member of the Institute since 1926 and served as Chapter Treasurer 1933-1934 and Chapter President 1935-1937.

He is a member of the firm of Garfield, Harris, Robinson and Schafer, architects in Cleveland, and in this capacity executed many noteworthy commissions.

Although he has done much for the advancement of architects and architecture he has found time to be an effective member of the Cuyahoga County Planning Commission and Trustee of the Cleveland School of Art, Western Reserve University, Music School Settlement and the Cleveland Humane Society.

Sincerest congratulations from the Cleveland Chapter A.I.A. and all Ohio architects.

## National Convention Notes

By CHARLES F. CELLARIUS

*Regional Director  
Great Lakes District, A. I. A.*

The convention of the A.I.A., scheduled for Indianapolis the first week of May, was postponed at the urgent request of the Office of Defense Transportation. The Board of the Institute met at Indianapolis to receive the reports of committees and to consider some matters which normally would have come before the convention.

The Board took no actions which would affect the tenure of office of any Institute officers, committee chairmen or committee members. All officers and committees will continue until their successors are elected or appointed.

It is hoped that conditions may permit an Institute convention this Fall.

The outstanding feature of the reports was the excellent condition of the Institute both financially and in membership. In spite of the war, the year 1943 showed

excess of income over expenditures of \$21,121.69. In membership the Institute increased to 3,915 on January 1, 1944, and the present membership is about 4,300. The growth in the Great Lakes District is particularly encouraging, due largely to the great expansion of the Detroit Chapter. This growth is shown in the following table:

### *Corporate Membership, A.I.A.*

	9-30-40	4-18-43	4-18-44
Indiana	24	49	51
Kentucky	24	32	38
Detroit	79	206	352
Grand Rapids	20	36	44
Cleveland	65	116	118
Cincinnati	43	47	55
Columbus	18	55	58
Dayton	16	33	34
Eastern Ohio	11	19	21
Toledo	19	23	23
	319	616	794

Unification has been achieved in Michigan and the Institute Chapters coalesced with the State Society. It is to be hoped that the Architects Society of Ohio and the Institute Chapters in the state will take even more active steps to bring into the Institute membership all reputable registered architects, so that we may follow the lead of Michigan and be the second state to have complete unification.

The Washington Representative, Mr. Este Fisher, continues to ably represent the entire profession before the various departments of the government. He particularly urges at this time that the profession make clear its position in regard to public housing, and it would be most proper for the profession in Ohio to advise him as to whether it is in favor of or opposed to public housing, and with this to provide a definition of public housing as the architect understands it.

The Committee on Education and also the Technical Services Committee of the New York Chapter have recommended the establishment of a national research foundation of U. S. Bureau of Standards distinction, with a national director of education whose duties would be to keep abreast of technical, aesthetic and scientific developments and studies and be available to the public and the profession. The cost of such a foundation would be considerable and the matter is being studied for later report to the Board.

The architectural profession, in spite of the war which has brought problems to nearly every member, is showing a vitality and an enthusiasm that is astounding, and the profession has every reason to expect great achievements in the busy construction that is probably not far ahead.

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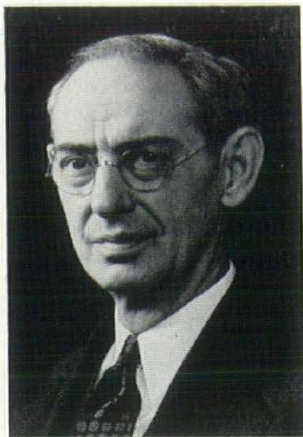
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CINCINNATI



# Post-War Architectural Education

BY CHARLES ST. JOHN CHUBB  
*Ohio State University*

One cannot escape the plethora of pronouncements in press and radio predicting the things to come in the Utopia of the Post-War Era. They involve every conceivable human activity and interest—from soap, vitamin pills and tires to helicopters for the masses to travel about a post-war global civilization of perpetual peace. Much of it is the wishful thinking and propaganda of those who will have goods to sell and all of it is based on the assumption that we already know what the social and economic status of the post-war world is to be. Of one thing we may be very certain, namely, that there will be a period of great building activity in the effort to make up for the lag in normal building for the pursuits of peace which has resulted from fifteen or more years of depression and war. The great volume of present post-war planning results from a restatement of George Washington's dictum to read "in time of war prepare for peace."



CHAS. ST. JOHN CHUBB

As is to be expected the educators have contributed liberally to the post-war discussion. A national survey of the views of 143 college presidents conducted by the American College Publicity Association is shortly to be made public. Preliminary reports of this survey indicate a unanimity of opinion on several points.

*First.* There will be a very great increase in college enrollments. This will come, in large part, from the millions of men now in the service whose college training was either interrupted or never started because of the war. A large majority of the college presidents believe that the Federal Government should assume the cost of tuition, books and all or part of the living expenses of the discharged veterans who wish to return to or start their college training. They fear, however, the possibility of a dictatorial control of college education by the Federal Government as a corollary of an extensive subsidization of the education of veterans.

*Second.* The presidents anticipate a return to the normal four year curriculum with the dropping of the accelerated schedules adopted as a war measure.

*Third.* Almost without exception the presidents agree that college training will have a significant expansion in the field of adult education.

*Fourth.* They expect a shift in wartime student interest in mathematics, science, engineering and in the technical and professional fields back to the humanities and liberal arts. All of these points have implications related to the study of architecture.

The Association of Collegiate Schools of Architecture has also made a survey of the opinions of the heads of all schools of architecture in answer to the question "What are the changing ideas in architectural education and in the architectural curriculum?"

Only about a third of the schools replied to this question, and of these only one expressed the opinion that there will be a radical change in either teaching method or in the curriculum. All seem to indicate that the post-war curriculum will continue to revolve around the instruction in design, conducted by the familiar problem method. In this field of instruction there has been, in recent years, a very marked change in the subject matter of the design problems. The Order Problem or Analytique and the Archaeology projects of yesterday have been abandoned, not without some educational loss. The design project of past years was too much confined within the restrictions of a lot of given size and was of a too imaginative nature and too little related to present day practice in meeting the problems of an ever-changing social order. Today's problems have expanded beyond the confines of a single lot and into the realm of city and community planning, housing and similar problems of greater social significance. More than half of the school heads expressed the view that the architectural schools must, in the future, give more emphasis to instruction in community planning. Article II, of the Constitution of the American Institute of Architects, in defining the objectives of the Institute uses the phrase "and to make the profession of ever increasing service to society." To do so the architect must familiarize himself with the social structure of our day. With such an end in view many of the school heads are advocating the introduction of such liberal studies as sociology, economics and political science as requirements in the architectural curriculum. The Society for the Promotion of Engineering Education, in a recent committee Report, is advocating the inclusion of not less than 20% of non-professional and non-engineering subjects in all engineering curricula. This broadening of engineering education is not to be accomplished by lengthening the courses to five years but by a reduction in the time given to highly specialized technical subjects which will be moved up into the field of graduate study. This thinking on the part of both engineering and architectural teachers is moving toward the educational system long ago adopted by the medical and law schools—that of requiring an arts degree as being the best foundation on which to build a professional education.

A frequent criticism of the architect is that he has oversold the aesthetic aspects of his profession. In recent years the tendency has been for the curriculum in architecture to withdraw from the engineering college and to reestablish itself in a College of Fine Arts in the University organization. With this change has come the termination of the degree in architectural engineering in many schools. The building public, in particular the Federal Government, seems not to be in accord with this educational trend when the problem of professional employment arises.

The engineer has become the glamor boy of the war construction era. The architect has become the employee of the engineer or he has sought to maintain his identity by adopting the professional designation architect and engineer or the firm name, "Architects and Engineers." The architect weakens his professional position in his contract with the owner by charging an extra fee for engineering service which he should be competent to perform.

If the architect is to regain his professional position as the master builder he will have to meet the competition of the engineer with the engineer's weapons—structural competence. The place to begin is in the schools by insisting on more thorough courses in construction and



in the fundamentals of mathematics and mechanics underlying construction. Fifteen years ago 22% of the 6006 architectural students in the colleges were majoring in architectural engineering. In March this year there were 1391 students left, of whom 31% are women, and the student in architectural engineering has all but vanished. This student lack of interest in structural courses is difficult to understand in the light of his intense interest in the modern architecture, of which the very essence is the glorification of construction. With the greatest of ease he has accepted and added a sixth order of architecture to the classical five of history. It is a gas pipe filled with concrete without either base or capital which yesterday was used in basements, and today takes its place, unashamed of its nakedness, in the facades of even monumental buildings.

Architectural educators have never assumed that the granting of a bachelor's degree in architecture is an indication of a finished education in preparation for the independent practice of architecture. At best, college training must be largely theoretical. The practical application of this training must continue to be found in the offices during the first few years between graduation and admission to practice through registration. Some years back the ateliers of the Beaux-Arts Institute of Design, conducted in many offices, supplied a valuable extension of the training of the young architect following his graduation. Its contribution, however, was exclusively in the field of design and made little or no contribution to the multiple details which comprise architectural practice. The atelier has passed and in its place the Institute has set up the Mentor system, in which the practicing architect assumes the responsibility for the practical training of the young college graduate. War conditions have prevented a true evaluation of the efficacy of this system but to date it has not produced the results hoped for. Many of the schools, particularly those in the large cities, are now considering the problem of a continuing educational program into the field of adult education. Such a program will give opportunity to the young man already in employment to broaden his knowledge of the world in which he lives.

Such additional training will be largely outside the technical field of architecture but in fields closely related to it. No professional man can afford to assume that his education is ever completed. The objective of education as contrasted with that of propaganda has been well defined in the statement "Education teaches us how to think while propaganda teaches us what to think." If the schools will keep that in mind, they will avoid the dogma of both traditionalism and ultra modernism.

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## Some Pointers From Engineers

BY JOHN PAUL JONES

(Jones, Cary & Millar, Cleveland, Ohio)

The relations between the architect and mechanical and electrical engineers must of necessity be very close, and the coordination of their work is of the utmost importance. It has been my experience that the vast majority of the silly errors which are so often found in working drawings could easily have been avoided had either party kept the other fully informed during the development of the project. I therefore suggest a few "don'ts" which would at least help the engineer to solve his part of the problem. I do so, I must confess, with some misgiving, knowing full well that you could give me a lot of "don'ts" and perhaps a number of "do's" as well.

Don't spread toilet rooms all over creation if it can be avoided. Then, after carefully arranging them one above the other and providing a beautiful pipe space perhaps a foot wide in back of the fixtures, don't run a beam through the center of it at each floor.

Don't overlook the fact that soil risers have to run up through the roof and down eventually to the ground. Don't let the lower end terminate in the middle of a ball room ceiling or the upper end under a promenade deck.

Don't try to conceal a 3" pipe in a 4" tile wall. A 3" fitting measures about  $3\frac{3}{4}$ " over the hub, and if the plaster is to cover on both sides, the pipe must be located within  $\frac{1}{8}$ " of the center. Plumbers just aren't that accurate.

Don't build machine and fan rooms that only an acrobat or a Pigmy can move around in. Machinery must be maintained and therefore it should be accessible and the space around it should be ample even though it requires additional cubage or necessitates stealing space from some other part of the building.

When your engineer requires 11' -0" clear head room in a boiler room, don't give him 11' -0" to the underside of the slab and then put a couple of 2' -0" deep beams across the room.

Don't browbeat the engineer into accepting a 30' -0" high stack when it ought to be 50' -0". A chimney which is out of proportion with the height of the building is certainly not ornamental, but one which produces insufficient draft is a first-class headache for all time.

Don't criticise your engineer too harshly if the cost of the mechanical trades runs higher than you expect or is a higher percentage of the total cost of the structure than you are accustomed to. Standards, particularly in heating and lighting, have advanced far more rapidly than most other building trades. Air conditioning has definitely entered the picture, and I predict that in years to come a summer cooling system will be as much a part of a major building as a heating system. With improved standards in heating and ventilating, people have become more conscious of temperature changes and drafts. Accepted lighting intensities have more than tripled in the past ten years. These circumstances will increase the cost of mechanical equipment far beyond the normal increase in building costs. Only a few years ago the combined cost of heating, plumbing and electrical work could be expected to run about 20 percent of the total cost of the average commercial building. In post-war work I venture to say it will be nearer 35 or 40 percent.



# Unification Is Here — Let's Go

By WILLIS A. VOGEL, *Vice-President, A.S.O.*

Ohio architects can take credit for the "Ohio Plan" which developed into a national programme.

Much credit can be given the leadership of Ralph Carnahan of Ohio, Talmadge Hughes of Michigan, Matt Del Gaudio of New York and Julian Oberworth of Kentucky. Many others also deserve personal mention for their valuable efforts to complete a practical and flexible national plan.

The A. I. A. national officers realize the need of State and local control, all in our organization, and have endorsed such a programme to cover the entire country.

This has now increased the A.I.A. membership 47% over the average membership of the A.I.A. for the past twenty years and is continuing to increase as unification proceeds.

The 1941 State Society Convention held in Toledo stressed "unity" and today Dayton, Cincinnati, Eastern Ohio Section and Toledo Chapters have one organization and one set of officers. Toledo Section now is the Toledo Chapter, A.I.A. with their elected "Representative" as a member of the A. S. of O. "Executive Board." The objective for Ohio is "unification" in all Sections completed by January 1st, 1945.

The Ohio plan is clearly "representative" and gives all registered architects the advantage of participation in all State and local affairs and the opportunity to affiliate as associate or corporate member of their local A.I.A. Chapter.

Every registered architect, holding his paid-up dues card from his Chapter, which covers his State and local dues, is eligible to vote for the officers of the A.S.O. and other State Convention actions, to vote in his Chapter for State and local matters and for his Chapter "representation" to the A. S. of O. executive board. Also the privilege of holding office in the A. S. of O. or as "representative" of his Chapter.

The State officers and the six Chapter representatives will constitute the "Executive Board" of the Architects Society of Ohio.

The "Executive Board" will have such powers as vested in it by the A. S. of O. by-laws and the national A.I.A., but it shall not exercise any authority over the various Chapters. The A. S. of O. is to be a non-profit corporation.

The A. S. of O. annual dues will be voted upon at the State Convention. Each Chapter will establish its own annual dues and will add the two amounts and collect as one item from each member. Chapters will remit State dues to the A. S. of O. State Treasurer. All Chapters and the Architects Society of Ohio will all operate on the fiscal year.

The "Ohio Plan" was ratified at the 1943 annual State Convention and now the by-laws of the A. S. of O. must be amended to conform to the Ohio Plan and to the national A. I. A. unification. The revised by-laws should be ratified by the next A. S. of O. Convention and by the national A.I.A. officers.

Under the Ohio Plan all six A.I.A. Chapters in Ohio will hold their original charters and allotted territory. At the national A.I.A. Convention each Chapter will be rep-

resented by its elected delegates, allotted in the same manner as in the past.

While all "Associates" of a Chapter are invited to become corporate A.I.A. members, the length of time "Associate" classification is held, is at the discretion and choice of each Chapter.

During these recent years team work and better fellowship among architects has developed and has shown us what can be accomplished by a "united" group.

The younger men who are now taking part and will continue to carry on our profession are entitled to our best efforts for the organization of "Unification" so as to be ready to meet the needs of the public as we "interpret architecture" for the best civic, economic and social solutions of the problem of living in the broadest sense.

All things worth having are worth working for—  
LET'S GO.

## At A. S. O. Convention



*John Quincy Adams, Sr., Chas. F. Cellarius, John F. Suppes, Willis A. Vogel.*

## Special Finance Committee

*(Condensed from Report by Edw. G. Conrad, Chairman)*

This committee has a District Chairman in each Section and has worked out a very well detailed plan for "centralized representation" for the Registered Architects of Ohio. The Architects Society of Ohio and each District are contributing to a fund for presenting this program.

The need is for:

1. A full time Executive Secretary with staff and headquarters office.
2. A consistent flow of publicity.
3. Public relations and legislative contact.
4. Editorial facilities for State Publication.
5. A "voice" for the profession at conventions, business organizations, real estate boards, Federal and State agencies, and various other groups where the architect will be truly represented.

The Finance Committee will continue, with your assistance, to exert every effort towards the accomplishment of the foregoing aims.

The fulfillment of this program will be beneficial to and will require the support of every architect in the State.



# Toledo Technical Council

By J. A. REECE, *Past Pres.*

November 12, 1942, marked the beginning of the Toledo Technical Council. On this date, a suggestion was submitted to several of the Toledo chapters of the National Engineering and Architectural Societies, by a prominent Toledo engineer, as to the possibilities of such a group affiliating for a common cause, in order to further unite the activities of the various societies in the Toledo Area. There was also included in the group, two Toledo educational institutions.

As set forth in the Constitution, the purpose of the "Toledo Technical Council" is:

"To bring the engineering and technical societies in Toledo and vicinity into closer touch with one another for effective public service, to cooperate in technical activities, promote meetings of mutual interest, and conduct effective educational programs."

The Council at the present time, comprises thirteen member societies, each of which are represented on the Council by two delegates. The member societies are:

- American Institute of Architects
- American Institute of Electrical Engineers
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- American Society for Metals
- American Society of Tool Engineers
- American Welding Society
- Architects Society of Ohio
- Engineering Alumni Association of the University of Toledo
- Ohio Society of Professional Engineers
- Society of Automotive Engineers
- Toledo High School Engineering Association
- Toledo University Engineering Society

These member societies represent a combined membership, in the Toledo Area, of more than 900 technical men in the various fields of architecture and engineering. Since this organization functions strictly as a council, and not as a separate society, it neither attempts to control the activities of the member societies nor does it interfere in any way with individual identity of its member societies. By way of clarification, no individual (architect or engineer) can become a member of the council, as the constitution states that membership in the Council shall consist of Architectural, Technical and Engineering Societies.

Regular business meetings of the Council are held once each month for the general coordination of activities. The Council holds not more than three general meetings during the active season; each society taking its turn in sponsoring one of the general meetings and they work in close cooperation with the Council. These meetings are of direct interest to the entire membership. Through a Council of this kind, it has been possible to bring to a group of 900 technical men, outstanding nationally and internationally known speakers, which would otherwise be impossible.

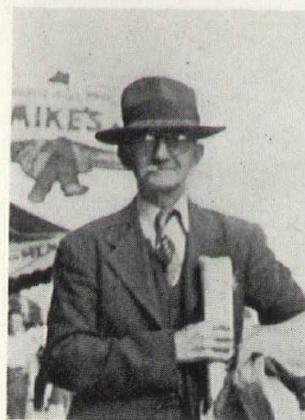
In this connection, one of the most interesting meetings the Council has held, was sponsored by the American Institute of Architects & Architect's Society of Ohio. The topic of this meeting was "We Will Build Again," a most timely subject, having to do with Post-War Redevelopment of the residential and business areas in this country and Rebuilding of the war-torn countries of Europe. It was presented in a most interesting manner by a real gen-

tleman, and a nationally and internationally known authority on this subject, Mr. Walter R. MacCornack, Dean of the College of Architecture at Massachusetts Institute of Technology.

The most recent meeting held by the Council was on April 24, 1944 and sponsored by the Society of Automotive Engineers. This was a dinner meeting preceded by a reception attended by over 600 architects and engineers. The subject on this occasion was "Facts and Uses of the Helicopter," presented by a Helicopter expert from the U. S. Army Air Forces.

## The Buckeye Architect

By JOHN N. RICHARDS



C. BERT R. BITTER

to and from work was a high wheel bicycle.

His first opportunity in architecture occurred in 1892 when he became an apprentice in the office of Joseph A. Beck, receiving no salary the first year. During the second year his boss saw his possibilities and paid him \$2.00 per day.

Famous early local architects, as Thomas F. Huber, E. O. Fallis, Becker & Hitchcock, and A. B. Sturges, employed Bert through the first years of the Twentieth Century. He became an excellent draftsman and letterer and there are very few early buildings in Toledo, drawings of which, if available, would not display Bert's technique.

The American Bridge Company employed him as a draftsman to design their drafting room catalog. His accurate drawings are part of the records of the Department of Architecture of the Board of Education of Toledo, where he was employed for several years. He was draftsman in the office of Britsch & Munger and Langdon & Hohly, working on Federal Housing projects. For a few years Bert had his own office in Toledo.

Defense projects, beginning in 1941, took Bert out to LaPorte, Indiana; Fremont, Nebraska; and McAlester, Oklahoma. This work was architectural drafting on ordnance plants. Early 1943 found him working on jobs in Edmonton, Alberta, Canada and later in Dawson Creek, British Columbia, Canada. The latter job proved very interesting, involving the detailing of buildings for construction on the Alcan Highway. Bert liked the fresh air and the people up there.

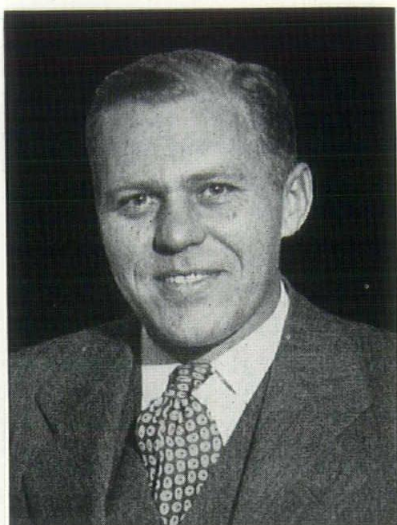
He came back to Toledo early in 1944, eager and anticipating new jobs to do in his profession. Bert is extremely proud of over 52 continuous years' work in architecture, as are his fellow registered architects of the Toledo Section.



# Committee for Economic Development

By HUBERT D. BENNETT, *Chairman*

The Toledo Section of the Committee for Economic Development started its program shortly after the first of the year. This campaign appears quite unlike the conventional campaigns for War Bonds, Community Chest, etc., because each community has its particular problems.



HUBERT D. BENNETT

To over-simplify in Toledo, we felt that too great a preponderance of the employment of the city was dependent upon the automotive industry, which was exaggerated because many of the firms were secondary sources. In the City of Toledo, there are very few end products produced. Most of the products are a part of some other article. This is true even of our largest industries, such as flat glass, starting and generating sets, transmissions, etc.

As a starting point, it was decided to organize a series of talks by outstanding people on new methods and materials. There were a series of eight such meetings held, which covered a wide range of subjects, such as plastics, aluminum, magnesium, welding, and similar topics.

It was finally decided that perhaps if Toledo's essential weakness was as we believed, it had its good points in that postwar conversion should strike us with the minimum shock. Component parts of automobiles will have to be made long before the first cars roll off the assembly line. To that end, we have set our sights on a long-pull program which involves a continuing effort, not simply a winter campaign.

We hope soon to hold a series of meetings under the aegis of experienced local people on merchandising problems.

In Toledo, there are 97 companies with more than 100, but less than 1000 employees. Forty-seven of these companies have returned questionnaires, indicating that they have in mind expansion programs involving building and machinery purchases of more than \$2,300,000.00.

So far, there have been five Research Fellowships established since the first of the year by small industries, but, of course, the effects of these will not be felt until sometime in the future.

The Committee for Economic Development was very fortunate in having the wholehearted help of the Chamber of Commerce, which had done a great deal of fundamental spade work over a period of years; all of which work was turned over to the Committee.

# Chapter and Section Notes

## CINCINNATI

By RUSSELL S. POTTER

Keppel Small of Oxford is at Camp Leonard Wood, Missouri. He is in the U. S. Army Engineers.

Aaron Davidson, formerly with Samuel Hannaford and Sons Co., is also at Camp Leonard Wood in the U. S. Army Engineers.

Lt. Thomas S. Lewis, U.S.N.R. has been in Cincinnati on leave. He is stationed at Norfolk, Va.

David Maxfield, at Oxford, is still a military secret.

The Cincinnati Chapter is cooperating with the Cincinnati City Planning Commission in post war plans, the exact nature of which will be announced later.

The New Cincinnati Building Code is in process of preparation but probably will not be issued during 1944.

The May Meeting of the Cincinnati Chapter and the Cincinnati Section of the Architects Society of Ohio was held Tuesday, the 23rd of May, at the University of Cincinnati.

News isn't very plentiful this month but maybe something will happen real soon.

## TOLEDO

By MICHAEL B. O'SHEA

On Tuesday evening, May 16th, the Toledo Chapter and Toledo Section held a joint meeting and dinner at the Elks Club.

President E. Milton MacMillin, State President of the Architects Society of Ohio; George S. Voinovich, member of the Executive Board, both of Cleveland, Ohio; and Ralph C. Kempton, Secretary of Columbus, attended the dinner and meeting as guests of the Toledo Section.

Prior to the evening affair, E. Milton MacMillin, Willis A. Vogel, John F. Suppes, Ralph C. Kempton, Geo. S. Voinovich, and Carl C. Britsch attended an Executive Committee meeting of the Architects Society of Ohio at the Commodore Perry Hotel. Mr. Suppes, second vice-president, of Akron, Ohio, was unable to stay for the evening meeting.

The evening dinner and meeting were small and informal; approximately twenty local members were in attendance.

Mr. MacMillin spoke briefly on the activities of the State Society and of the establishment of a permanent State Headquarters office and full time executive secretary and of the establishment of a fund for the maintenance of such facilities. This project is in line with that proposed by Past President Carnahan and about which Austin G. Damon of the Cleveland Section, wrote so interestingly in the December 1943 issue of the OHIO ARCHITECT.

Mr. Voinovich spoke on the activities of the Cleveland Section, particularly as they applied to the membership drive, and to the collection of funds to promote the interests of the profession.

An informal discussion of the obsolete State Building Code, particularly the School Buildings Section, was one of the high lights of the meeting. Action was taken to acquaint the State Postwar Planning Committee with the seriousness of the matter, with the proviso that considera-



tion of this matter is timely and urgent and should not be delayed or considered purely as a postwar project.

A spirited general discussion of enforcement of the registration law and what to do about the small house question was participated in by the membership, led by our genial State Secretary Kempton. The result of this activity was that a cubical or monetary limit be inserted in the state law to define a small house and to give the Board a basis for enforcement.

### CLEVELAND

By GEO. S. VOINOVICH

Much has been done to unify the activities of the Cleveland Chapter A. I. A. and the Cleveland Section A. S. O. through the cooperative spirit of both executive committees, and through the very splendid program committee of both organizations consisting of Phelps Cunningham, Wilbur Riddle, and John Carr.

On Thursday, March 23, guest speakers at the combined meeting were Mr. William G. Nichols, Director of Housing Dept., U. A. W.; Mr. Otis Winn, A. I. A. Housing Consultant for the U. A. W.; and Philip Brezner, A. I. A. Consultant Associate all from Detroit.

The presentation by the speakers in behalf of adequate housing for all peoples was so forcefully given that a considerable discussion period followed. It conclusively showed that the architects were interested in all phases and all viewpoints on the question of housing.

On April 27, and on May 11, combined meetings were held at the housing center. These meetings were strictly business meetings. Architects' fees, the question of public and private housing, and the architect in the small house field were discussed. Also, the question of hiring a full-time executive secretary and publicity man to serve the interests of the Architectural profession was discussed in detail and it was decided that a fund must be provided throughout the state to take care of this office. According to Mr. Edward Conrad, Chairman of the State Special Finance Committee, a minimum of \$11,500 would actually finance this office. Since Cleveland has approximately one-third of the architects, a concentrated drive will be necessary to fill our quota. Appointed on the local finance committee are Gilbert P. Schafer, Chairman; P. R. Laurie, Maxwell White, George C. Walters, J. P. Ceruti, Franklin G. Scott, Wilbur D. Riddle, Austin G. Damon, Howard F. Horn, Paul J. Ockert, R. Franklin Outcalt and Alonzo G. Bailey. The first contribution received was from Maxwell White who donated \$100.

The following candidates in the Cleveland Section successfully passed their State Board Examinations, J. Stanley Ott, Bascom Little, Jr., and James W. Bevy. Welcome into our midst!

### BROAD AND HIGH

By RALPH C. KEMPTON

The Columbus Chapter is faithfully maintaining its monthly meeting schedule trying to do a lot in the two hours time usually given or taken. Attendance while not much different than in the past is far from satisfactory and illustrates in a most vivid manner one of the major causes for most of the difficulties confronting the profession today.

The meeting programs while short have been well above the average as to interest and importance. The Public Works Comm. under the able and aggressive guidance

of Chairman H. D. Smith, is still on its toes putting the finishing touches on step No. 2 in the Chapter Post War Planning Program. The brief report of Director Cellarius, covering the meeting of the Directors in Indianapolis was read and contained a lot of information right off the front burner. The postponement of the Annual Convention, while accepted by every one as being the proper step under the circumstances was a keep disappointment to several of the faithful travelers.

The election of Floyd F. Glass to corporate membership in the Institute and Arthur J. Dupre to Associate membership in the Chapter was announced by Pres. Ray Goller.

The war has been coming closer to the Chapter as the Secretary Tim Armstrong, has been expecting to hear from the Navy. Recent rulings may let Tim stay with us for quite a spell. Capt. Galen Oman AC (Pettit & Oman) has been transferred from the Coast Artillery in which he has held a commission almost since Noah built the ark, to the Air Corps. While his address is HQ ASC Patterson Field Ohio, a recent missive from him signed "Doc" had a Long Beach, Calif. post mark.

The summer meetings will include some out door recreation activities to which the ladies will be invited.

### EASTERN OHIO SECTION

By JOHN F. SUPPES

Yes unification is getting a foothold in Ohio, for once again the Eastern Ohio Section of the Architects Society of Ohio and the Eastern Ohio Chapter of the American Institute of Architects held a joint dinner meeting at the Shady Hollow Country Club in Canton, on Wednesday May 31st, following an afternoon of golf and outdoor recreation. A large representation of the architects from the thirteen surrounding counties were in attendance.

Following the usual custom, a touch of "color" and social life was added to the gathering by the presence of many of the wives of the members.

At the executive committee meeting, Mr. Charles F. Owsley of Youngstown was appointed a director, representing the Eastern Ohio Section of the A.S.O.

The architects of the City of Akron have had several meetings in the past few weeks and have recently formed the Akron Architects Society, with W. B. Huff being elected president and Trefon Sagadencky being made secretary-treasurer.

There have been some very pertinent matters discussed, one being the re-writing of the Akron Building Code, which is 24 years old, and requires re-vamping to bring it up to date with the new materials on the market and the new conditions. A committee comprised of L. E. Welker, M. E. Murphy, and M. E. Harpster was appointed which is cooperating with a similar committee representing the local Builders Exchange and with the Superintendent of Buildings. Every community might think seriously at this time of its ordinances affecting the health of its people, including sanitation and zoning etc., and the safety of its structures existing and to be erected.

There are a number of local problems concerning the building program of Akron, and this organization can well afford to care for these. It is a much needed banding together of the local architects to look after their own and the community interests as pertaining to the practice of architecture, for if the architect does not look after his interests individually and collectively, no one else will.



# Leisure Moments

By CARL C. B.

As early as 1916 Henry Hornbostel, vibrant with the enthusiasm of a recent expedition into the land of the Aztecs and the Mayas, proposed to the School of Architecture at Carnegie Institute of Technology, a post graduate or scholarship course to make measured drawings and restoration renderings of those archaeological fragments.

To my knowledge nothing tangible ever came of Hornbostel's proposal. Nevertheless a long time fuse was kindled that twenty-five years later blew the lid off the smouldering idea that some day I would do a bit of delving into archaeological lore myself. Not too seriously, but rather a leisure time diversion, to record with pencil or brush to suit my own fancy.

Visiting with our Southern neighbors has been considerably popularized in recent years by the good neighbor policy, the completion of a leg of the Pan - American highway down through the Sierra Madre Mountains and because of forbidden sea lanes, with the result that we suddenly discover what charms in the land of contrasts await those who go down Monterey way and farther.

Whether it be the antiquity of recently unearthed feathered serpents at the altar of Quetzacoatl, the thatched nipas of Tamazunchale or the ornate towers of Borda's Cathedral over the terraced tile roofs of Taxco, that strikes awe within one, a thousand challenges present themselves on every hand to the artist who wishes to translate his

moods to paper before he succumbs to the delightful tenor of life "Manyana."

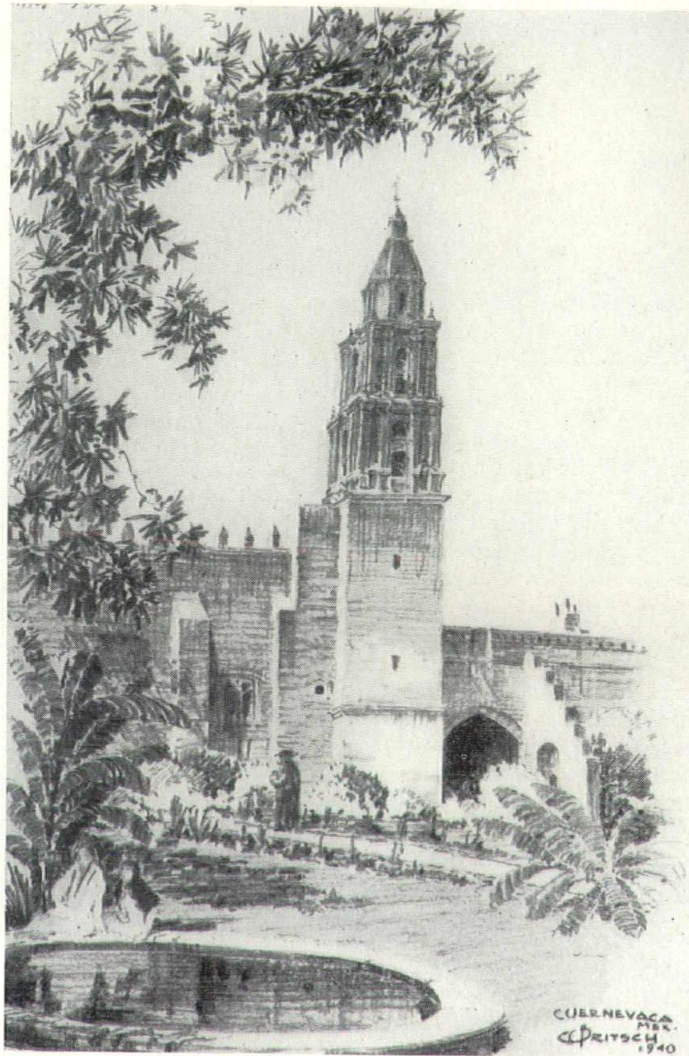
Ah yes, tomorrow. But those who jump out of a world of bristling activity, expecting in three or four weeks' time to race hither and yon, from the pyramids at Teotihuacan to Guadalajara, and on down to tropical Acapulca on the Pacific, then back to work at the office on Monday morning, scarcely tarry long enough in one spot to catch the germ of carefree native life expressed by our young guide at Ciudad Victoria when he drawled, "I have nothing to worry about but my machete, if I got one."

But linger a while in Taxco and one soon agrees that there are no words to describe it—only feeling—and linger you must to know the sensation.

This quaint mountain side village has been spared modernization by the Mexican government, which has recognized its unique qualities and has taken precautions to immunize it from change.

No structures can be built

without federal sanction and conformity to the pattern of quaintness. The narrow cobblestone streets, winding up or down throughout the village, soon induce one to abandon the car and take to foot or horse back. Only on the plaza in front of the Cathedral is there level space. From here one winds either up or down, and, if by chance, your curiosity leads you up some narrow path between buildings, which suddenly lands you in someone's patio, you begin to realize you are somewhat



Cathedral, Cuernavaca, Mexico



# Of An Architect

RITSCH, A.I.A.

bewildered as to just how you got there. Turning your eyes toward the Cathedral, whose towers peek at you from every enchanting vista, you are directed back to the place from which you started.

This center of rich silver mines has produced many skilled craftsmen in the metal. Around the plaza and down the steep streets that lead away from it, border the little shops and ateliers from which come the tinkling sounds of anvils, where some of the finest hand wrought arts and crafts objects are produced—silver, copper, tin, leather work produced by skilled artisans. No factories here belch out their smoke in the rush of mass production, but into the night the sound of hammers, mingled with the festive singing of senors and senoritas, indicate that the sudden spurt of trade from the American tourists is causing the silver smith to stay a little longer at his bench.

In this artist's paradise, I have watched the taxi caravan unload its precious cargo of tourists—dowagers in their high heeled shoes, attempting to negotiate the cobble stones that have been polished round and smooth by a few hundred years of burro's hoofs, finally giving up in despair, and hobbling back to their taxis on the plaza. Here in their disgust they sat fanning themselves and saying, "Whew, when do we get out of this smelly place?"

While at the Pyramid of the Sun, I overheard a conversation between two corpulent gentlemen who had just arrived in the cloud of dust of a taxi train tour. The

Mexican taxi driver has found the automobile a new outlet for some of his hot enthusiasm, and he often drives it as though he were riding a pinto. I am informed that the road across to Teotihuacan from the main

highway has since been paved, but a couple of years ago it was still a dirt road, which in the dry season, became a series of chuck holes filled with fine dust. After seventeen miles of this, it really takes an ardent archaeologist to appreciate this dead city of an ancient civilization.

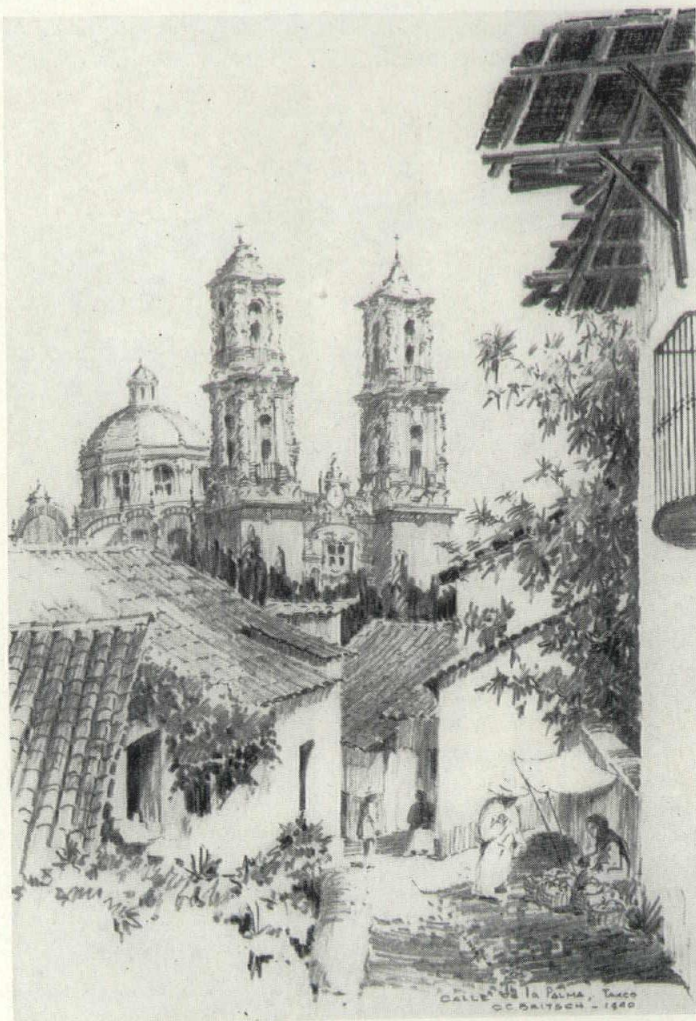
We had just returned to our auto after several hours hike over a most intensely interesting archaeological area as this taxi caravan pulled up, and the dusty, jolted tourists crawled stiffly out of their cars, making a rush for the Coca-Cola stand so strategically located.

After these two gentlemen had the dust washed down their throats, they stood looking at the great pyramid. One finally expressed his appreciation of the Toltecs in a bored expression and blurted, "I wonder why the hell they

brought us out here to show us this pile of dirt."

So one's moods and impressions of Mexico are measured by how one travels, one's dress for comfort and one's capacity to appreciate what the eyes see.

Unwilling to terminate our visit to our Southern neighbor, still with a goodly bag of sketches by which to recall our experiences, we approach the border, and with that reluctance akin to the departing when finding a new and interesting friend, we say, "Adios Mexicanos—Hasta la vista—Yes, we shall return."



Calle de la Palma, Taxco, Mexico



# City Planning In Santiago, Chili

BY BLAKE-MORE GODWIN,  
*Director—Toledo Museum of Art*

Post-war planning is only a new name for a work which has long been going on in alert communities and countries throughout the world. That cities and districts may be developed more economically, efficiently and satisfactorily "according to plan," as the Germans would say of evacuation of any location in the face of strong enemy pressure, is neither a new nor an American discovery.

The planning and housing work which has been done in Europe, particularly in Sweden and Holland is familiar to many in the United States through frequent publication. That which has occurred in the republics to the south of us is far less well known.

It was my good fortune to visit the Republic of Chile in 1941 on the occasion of the celebration of the four hundredth anniversary of the founding of Santiago. My previous connection with that republic was at best a tenuous one. Our Toledo Museum of Art was the possessor of, we believe, the first painting by a Chilean artist ever bought by a museum in the United States, a landscape by Roberto Humeres. Arriving in Santiago, Mrs. Godwin and I immediately sought out the artist. We found that he was not only a painter, but the City Planning engineer of Santiago. From a long interest in the subject, dating back to the early twenties, when the founder of the Museum, Edward Drummond Libbey, and the first director, George W. Stevens, were both members of the City Plan commission under which the Bartholomew plan for Toledo was adopted, we had a double bond of contact with him. A charming and delightful person as well as a competent artist and city planner, he was most generous in his attentions to us, and through his courtesy we were able to gain a considerable insight into the planning work which was going on in Santiago and in the Republic as a whole.

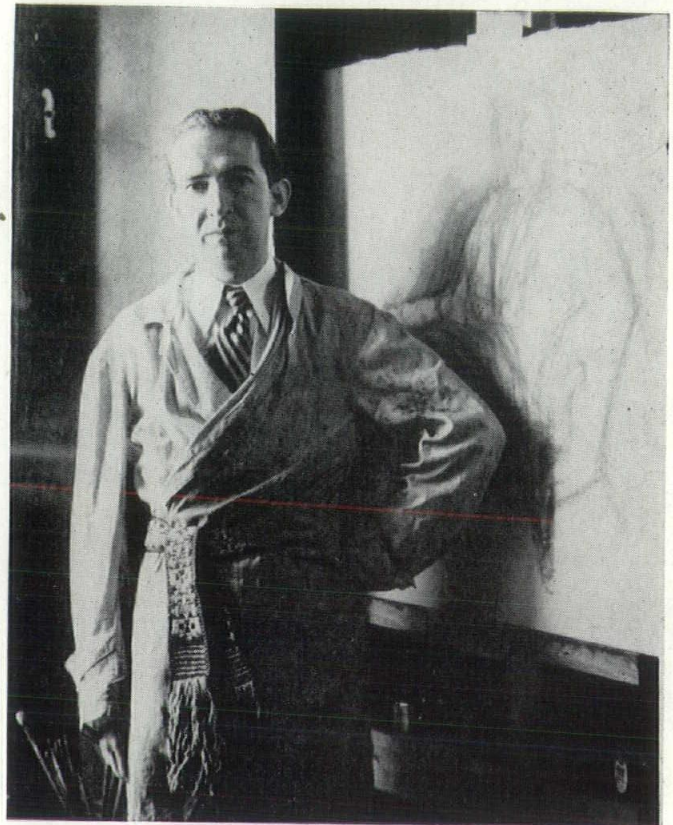
Santiago, the capital, a city of a million or thereabouts, contains one-fifth of the population of the country. It has its own independent planning organization, while that for the rest of the nation is done by the central government, either, under the Ministry of Development, or the Commission for the reconstruction of the areas devastated by the earthquake of 1939.

The antiquity of Santiago alone would indicate its need for modern city planning. It lies on a flat alluvial plain between the Andes and the low coastal range. The little river Mapocho runs through it. Two peaks, Santa Lucia and San Cristobal, rise abruptly from the plain within its boundaries. Aside from a few broad and purposeful avenues, such as Bernardo O'Higgins, the streets are narrow, though reasonably straight, for the grid-iron plan has been followed in many areas. There are a number of focal points, such as the Plaza de Armas and the Moneda (President's Palace), a few blocks apart in the center of the city, and others in outlying districts. Parks occupy a substantial acreage. New residential developments have been quite extensive in recent years, and there has been a considerable amount of new commercial and public building. Traffic is remarkably well controlled by efficient officers who command the respect of motor car drivers as well as of pedestrians.

The Moneda faces, across the Plaza Libertad, the Avenida Bernardo O'Higgins. Directly behind it is the Plaza Constitution. Around the Moneda and the two

plazas are government and commercial buildings forming a Civic Center. The recent structures take the form of skyscrapers in the modern architectural idiom. When this development is completed, the well-proportioned Presidential Palace, built in the classical style of the late eighteenth century, will be handsomely set off by the greater simplicity of design of the newer buildings.

Movement of people and things being basic to all planning, the Santiago plan provides for the development of main and subsidiary highways. Where new widths have been established, all new building must conform to the greater dimensions. Hence one very frequently sees a new building set well back between two old ones. A major highway leading directly south from the Moneda has been planned, much of the right-of-way has been ac-



ROBERTO HUMERES

quired, and the encroaching buildings have been removed, leaving, in 1941, a very unkempt appearance, scheduled then to be improved rapidly.

Much further park development has been planned, the ideal sought being a block of park and playground within five or ten minutes walk of every family. One of the railway stations, adjacent to the Plaza Banquedano, has been removed, and its site converted into a park.

The zoning and building restrictions, save those structural ones necessitated by the possibility of earthquake, are quite similar to those generally in force in the United States.

In the center of the city the houses have been built around one or more courts, keeping the open space within the structure. This old scheme is preserved in the plans for re-development of the central district. In the outlying subdivisions new houses are being built on open lots, much



as is the custom in the United States. Many of them, strangely enough, are in the California Spanish style.

The great lament of Senor Humeres, who, by the way, was trained as city planner at the Sorbonne, is the same as that of every one of his North American colleagues, with the possible exception of Mr. Moses, namely, that there is far too little money available to carry out plans, or even to make designs. Yet, with what would seem to be a minimum expenditure, Santiago has, through careful planning, made a very creditable showing.

## May Board of Directors Meeting of the Institute

Sometimes the Board of Directors of the A.I.A. have been considered to be detached from the general membership, making decisions and deciding upon policies in a sort of Ivory Tower existence.

If any of you could have sat in on the session of the recent Board Meetings in Indianapolis, April 29th to May 3rd, when five all day and several night meetings were held, you would have come away with a very different idea.

You would have found your Board a very hard working one, with an agenda that often seemed impossible to get through in the time allotted. You would have found that through its Committees and Committee Chairmen its ears were close to the ground, and that it has a very keen sense of the individual corporate member's rights and wishes.

In an issue of the "Bulletin," which will be forthcoming as soon as physically possible, you will have the opportunity of judging for yourself the many matters that were before the Board at that meeting. This issue of the "Bulletin" will contain a more complete and comprehensive record of a Board Meeting than has ever been attempted before—made necessary by the postponement of the Annual Meeting. There will be many questions that will be put to the membership for their opinion and decision. The expression of their opinion will be requested through appropriate Chapter action.

At this Board Meeting half-day sessions or more were given over to important discussions with the Chairmen of the Education, Post War Planning, Government Relations and Unification Committees. Their conclusions and problems will also be given to you to think over and act upon.

The statement has been so frequently made that "Architects do not read" that we grow tired of hearing it. Nevertheless there is enough truth in it to warrant our serious consideration. Too often requests for information or help in important matters sent out by the Octagon pass unanswered.

The Board hopes that this time will prove the exception and that the issues of the "Bulletin" will be read from cover to cover. It is the duty of the individual members to be informed and to arrive at decisions regarding these important questions.

The American Institute of Architects in its very nature and organization is a democratic body. The Unification program to which it is committed is broadening its base and increasing its membership. Your part in this great organization is simple and direct—your help and support are essential.

Alexander C. Robinson, III  
Secretary A.I.A.

## Food for Thought

### Endorsed by the Architect's Institute?

*(Reprint from the Engineering News-Record, March 9, 1944.)*

Illinois architects have been revealed as the real instigators of the court action that resulted in the Illinois Professional Engineering Act being declared unconstitutional. Funds to carry the fight against that act to the state supreme court are asked for in a letter to the architects throughout Illinois signed by the presidents of the Illinois Society of Architects and the Chicago Chapter of the American Institute of Architects.

One sentence in this circular letter to Illinois architects may give a clue to the reason back of this effort to keep Illinois engineers from obtaining a registration law. This sentence reads: "We are told that if the law as written prevailed, all engineers, electrical, mechanical, etc., could engage in certain building operations under the law, but that licensed architects would be obliged to employ engineers of various descriptions." The Illinois engineer's license law contains an exemption for "the practice of any other recognized profession."

Architecture is one of those professions, hence there can be no justification for a belief that the new engineer's license law would be used to attack the legitimate practice of registered architects. Can it be then that the architects back of this movement are doing mechanical and electrical engineering work without the technical qualifications for such work and fear that their work is of such inferior character as to involve them in charges of malpractice if Illinois had an engineers' license law on its statute books?

As the Chicago Chapter of the American Institute of Architects now is on record as a party to this attack on the engineers' license law in Illinois, the institute itself can no longer escape responsibility for it. The institute must either condone the Chicago Chapter's action by its continued silence or it must openly condemn such unprofessional action.

### Hearing Delayed on Pro. Engineering Act

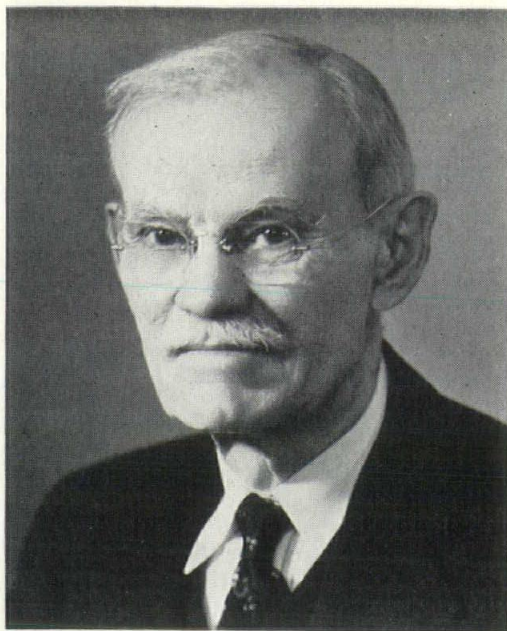
*(Reprint from the Monthly Bulletin of the Illinois Society of Architects.)*

The appeal now pending before the Supreme Court of the State of Illinois relative to the Circuit Court decision which declared the Illinois Professional Engineers Act unconstitutional, has been delayed until the May term of the Court.

During the interim, a joint committee composed of members of the Illinois Society of Architects and of the Chicago Chapter A.I.A. have been active in coordinating the efforts of the various architectural associations. In this connection, they have been extremely gratified by the response of the Illinois architects to the request for aid in presenting our case before the Supreme Court.

Meanwhile, the interest of the Professional Engineers, Structural Engineers and Architects throughout the country have focused on the significance of the court decision already rendered. The sentiment has varied from that of high praise for our actions to that of stinging rebuke. After subsidence of the tumult, calm deliberation, coordination and willingness on the part of the various professions may result in sponsoring a more applicable act, one which will properly integrate the various professions in relation to one another. There is hope and some evidence that we shall see such coordination shortly.





## Joseph Nelson Bradford

*(Resolution adopted by the College of Engineering, Ohio State University, upon the death of Professor Bradford.)*

Deeply grieved, the Faculty of the College of Engineering again pauses in its deliberations to do honor to the memory of another of its pioneer educators who has passed from among us.

Professor Bradford was born in Coloma, California on April 3, 1860 and there spent his boyhood and received such schooling as the public schools of that early date afforded. His parents moved to Columbus about the time the Ohio Legislature passed "An Act to Establish and Maintain an Agricultural and Mechanical College." Taking advantage of this newly organized educational opportunity, he matriculated as a student in 1877, only four years after the University was established. For two years he pursued his studies in what was then called the preparatory course. In the autumn of 1879 he transferred to the regular course and graduated in June 1883 with the Degree in Mechanical Engineering, only two years after the Department of Mechanical Engineering was established, his being the second such degree granted by the University.

During his senior year and for a time following graduation he served as draftsman for the Ohio Geological Survey under Edward Orton, State Geologist and first President of the University. The next two years he served in the Motor Power Department of the Pennsylvania Railroad until the autumn of 1885 when he was appointed by the University as an Assistant in Mechanical Engineering and Drawing. It should be noted that this appointment antedated the establishment of the Engineering College by ten years. Promotions to Assistant Professor and Associate Professor of Drawing came in 1890 and 1893. In 1899 he became Professor of Architecture and Drawing, at which time the curriculum in Architecture was established, and in 1906 when Engineering Drawing became a separate department the designation of Drawing was dropped from Professor Bradford's title. During the 21 years he taught "drawing" he found time to broaden his education

by self-study in the related fields of painting, photography and architecture, of which the latter ultimately became his life work. His early contribution to the Engineering College was that of the pioneer teacher in the establishment of the Departments of Engineering Drawing, Photography and Architecture. He also was the first to hold the office of the University Architect.

In 1906 his title was again changed to that of Professor of Architecture to which was added that of University Architect in 1912. His most enduring contribution to the development of the University was in the administration of the office of the University Architect which he held until 1930 when he retired as Emeritus Professor of Architecture. From 1885 to 1930 is a span of forty-five years and this represents the longest term of active service of any teacher or other employee in the history of the University. Nor did his service discontinue with retirement. For many years he had collected photographic records of important University events and personalities. Upon retirement the Trustees requested him to add to and organize this material as a "Photographic History of the University." This assignment has been devotedly carried on for the past thirteen years and is now available to all who seek information concerning University events which have all but passed out of memory.

While serving as University Architect, Professor Bradford prepared the plans and supervised the construction of nearly fifty of the buildings now on the campus beside many additions and alterations to older buildings. Among the more important of his buildings should be here noted the Archaeological and Historical Museum, Brown Hall, Robinson Laboratory, Botany and Zoology Building, Horticulture and Forestry Building, Campbell Hall, Pomerene Hall, Shops Building, Chemistry Building, Power House, Mack Hall, Commerce Building, Administration Building, Hamilton Hall, Starling-Loving Hospital, Arps Hall, and the Engineering Experiment Station. These in themselves constitute a worthy memorial to the man who designed them. His real contribution to the development of the campus, however, was in the preparation of a plan presenting a comprehensive scheme for an orderly development which, as he said in his report to the Trustees, provided for the "grouping of buildings carrying related work and was yet sufficiently elastic to permit the meeting of unforeseen future problems." Those of us who recall the disordered campus plan of 1910 will recognize the improvement in the campus of today.

During his teaching years Professor Bradford carried on a limited private architectural practice. Perhaps the most interesting example of this work being the Ohio Building at the Jamestown Exposition built in 1907. While serving as University Architect he was frequently called into consultation by other colleges on building problems.

The foregoing factual statement of material accomplishment fails utterly to reveal those qualities of character and personality which endeared him to all with whom he lived and worked. He was held with veneration in the affections of his students for his kindly patience as teacher and for his interest in their professional success after they were graduated. As a testimony of their affection and respect the Alumni of the Department of Architecture in 1941 established the Joseph Nelson Bradford Scholarship in Architecture, which recognition moved and pleased him deeply. In 1919 when Alpha Rho Chi Fraternity was es-



tablished in the department this student group quickly honored him with election to membership. When Omega Chapter of Sigma Xi was established here in 1898 he was honored by his colleagues by election as one of its charter members. Professional recognition came to him in 1922 when he was elected President of the Columbus Chapter of the American Institute of Architects.

Throughout his life he took an active interest in art and was for some years a member of the Paint and Clay Club in Columbus, an organization of local artists. In the Alumni Records he lists "Outdoor Sketching" as his hobby. He loved nature and captured it in all its moods and color with his deft brush in either oil or water color. The pages of Howe's "History of Ohio" are enlivened with his crisp pen sketches.

The Faculty of the College of Engineering here records its deep sense of loss in the death on December 13, 1943 of Joseph Nelson Bradford, Emeritus Professor of Architecture. As student, teacher, architect and Emeritus Professor, his connection with the University extended over a period of sixty-six years, marked by devotion to duty, loyalty, and modesty over his very real accomplishment. No group of students ever received more friendly encouragement than did those fortunate enough to have classes under his guidance. Of the Engineering College he helped fashion and lay its very corner-stone and we of the College and University in honoring his memory today may appropriately borrow the well-known epitaph from the tomb of Sir Christopher Wren in St. Paul's Cathedral, London—

"If you would seek his monument look about."

## About Dues—Refresher Course

A review of a few simple facts:

- A. No up and coming company can operate without money.
- B. You are a part of an up and coming company, The Architects Society of Ohio, the State Association of Architects.
- C. Your dues (money) help to keep your company in there pitching for you.
- D. Send them in *now*—the form below—and your check for five dollars.

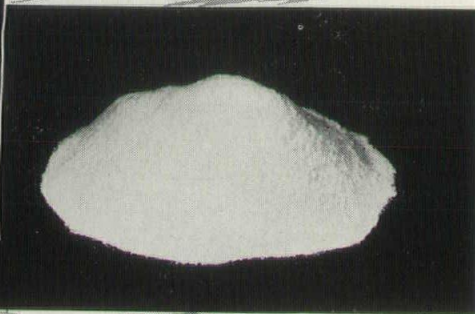
(Please Note: Many of your friends in the Services have sent in dues without being asked for them, but only you are asked to send them in. Your Society needs your dues. You will be paid up to December 31, 1944.)

Architects Society of Ohio, Date.....  
2750 A. I. U. Building,  
Columbus, Ohio.

Hereto attached is my payment, of five dollars for dues as an active member of the Architect's Society of Ohio for the year ending December 31, 1944.

Signed.....

OHIO ARCHITECT



## Homes of the Future

The little house the soldier dreams about, that home the war worker plans will be his when the world is normal again, must be worth the dreaming and planning. They must be built to last.

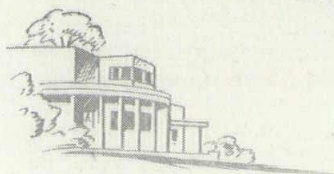
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## Books

### REINFORCED CONCRETE DESIGN

Southerland and Reese (\$5.00). John Wiley and Sons Inc., 440 Fourth Ave., New York 16, N. Y.

The use of concrete in building construction is going to increase in the future. That means that everyone who expects to engage in this field should at least have a speaking acquaintance with this material and many architects should become even much better acquainted. The above book published in a revised edition in 1943 gives a very practical approach to many of the structural problems involved in the design and construction of buildings today.

The following quotations illustrate the thorough insight of the authors into these problems in their advice to students:

"Use scratch paper and pencil liberally. Make many sketches. No problem can be understood until all the elements are clearly placed."

"The attempt to produce finished computations of the mathematical precision possible and often demanded in steel design is unwise in reinforced concrete design since the repetition of operations demanded for this result is time-consuming beyond all practical possibilities and the results are meaningless on account of the nature of the materials used and the uncertain action of continuous structures."

One of the authors is Raymond C. Reese, a Registered Professional Engineer with offices at 300 Sandusky St.,



RAYMOND C. REESE

Toledo, Ohio. Mr. Reese is well and widely known as a top ranking Structural Engineer and possessed of boundless energy and great ability.

### THE HANDBOOK OF ARCHITECTURAL PRACTICE (Revised 1943 Edition.)

Published by the American Institute of Architects, 1741 New York Ave., N. W., Washington, D. C. Price \$5.00

(Price \$4.00 to students of architecture, upon orders countersigned by the Dean of the Department of Architecture.)

This new edition was prepared under the direction of William Stanley Parker, F.A.I.A., of Boston; Past Secretary of The Institute; Chairman of the Committee on Contract Documents; and Consultant on Contract Procedure. He was assisted by special committees of the New York and Boston Chapters of The Institute and by members of the Committee on Contract Documents.

The Board of Directors of The Institute reviewed and approved the Handbook prior to its publication — and found it to be a comprehensive exposition of the best in modern architectural practice, apart from design.

The Handbook is commended by The Board to the seasoned architect, to the draftsman, the office manager, and the architectural student—and to him who prepares for the examinations of state registration boards.

The Handbook has 204 pages of valuable text, bound in size 8½ x 11 durable, blue linen cloth cover, with title in gold letters. It is a convenient volume for use in the library, office or drafting room.

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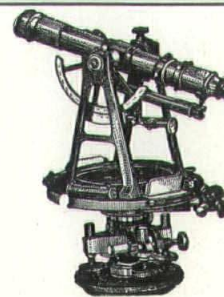
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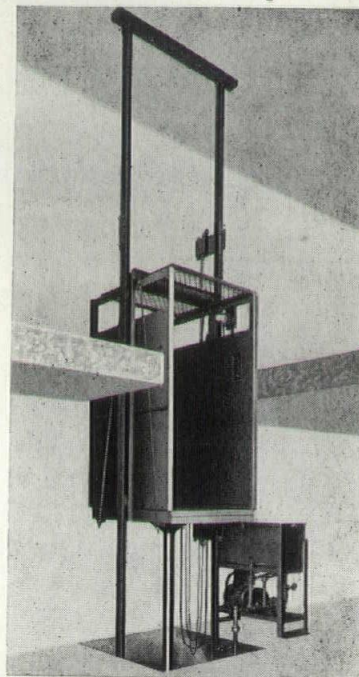
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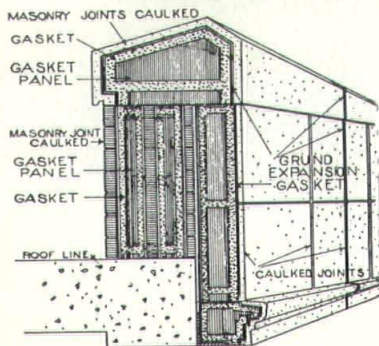
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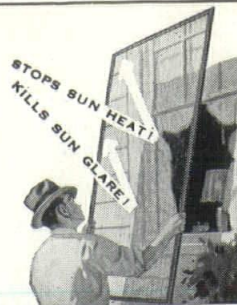
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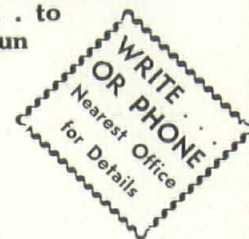
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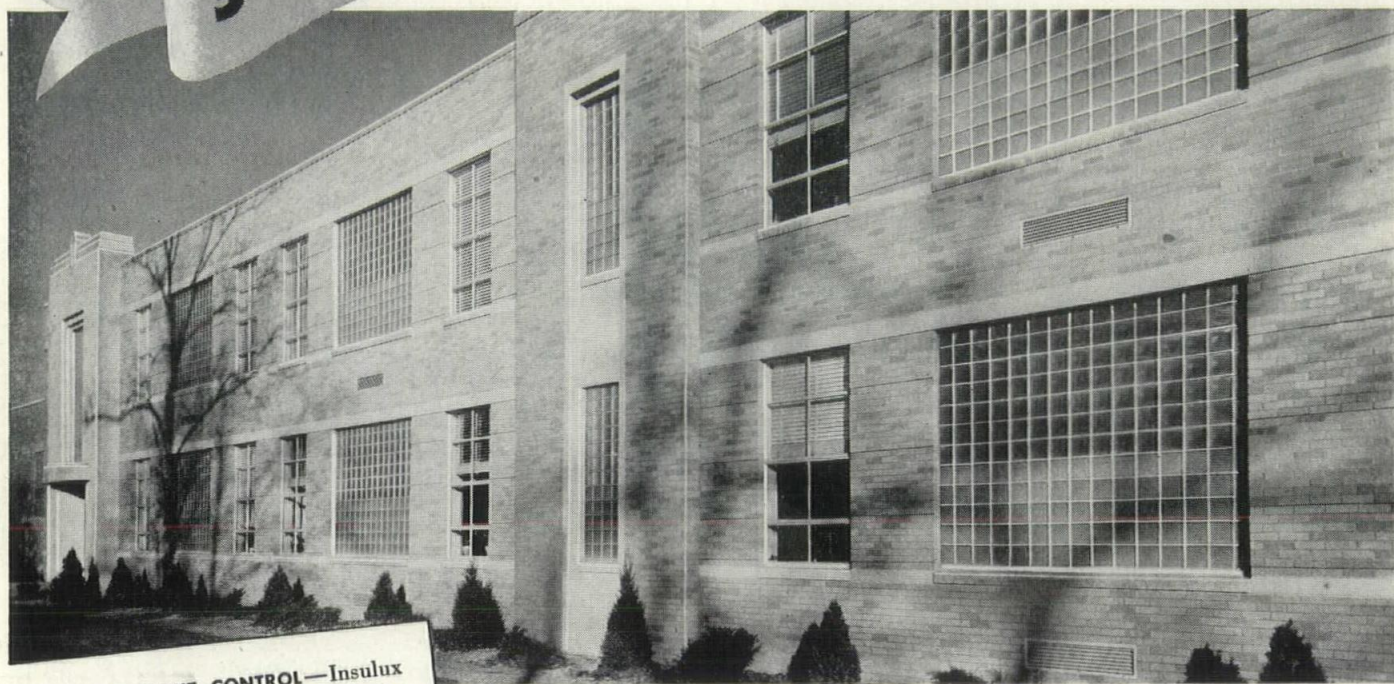
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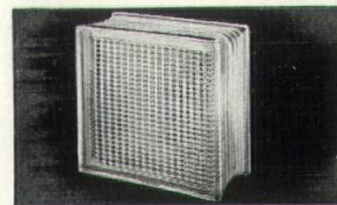
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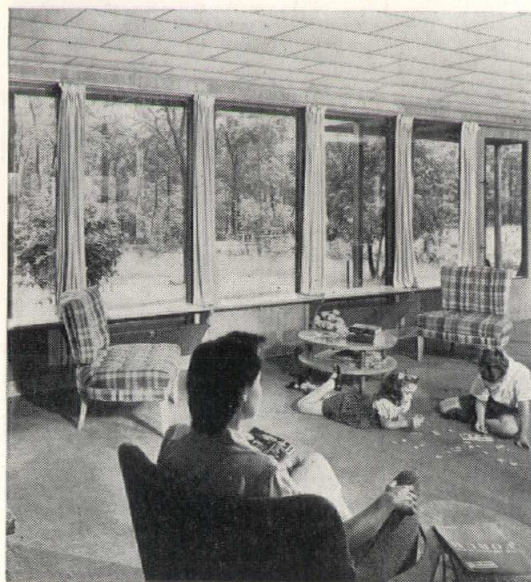


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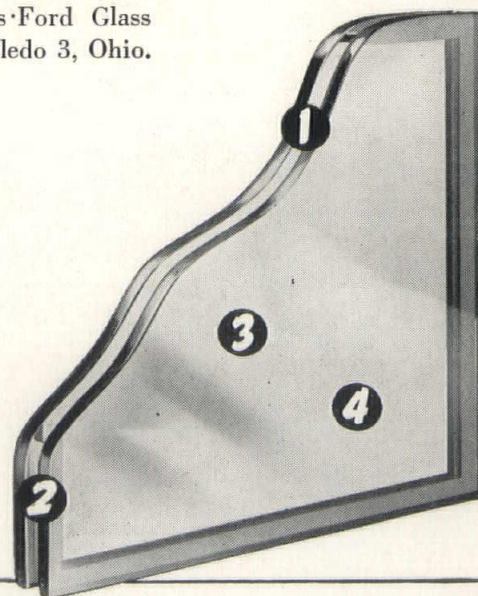
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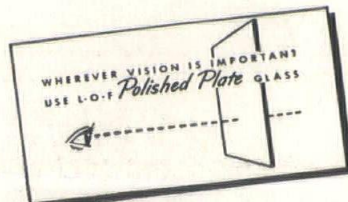
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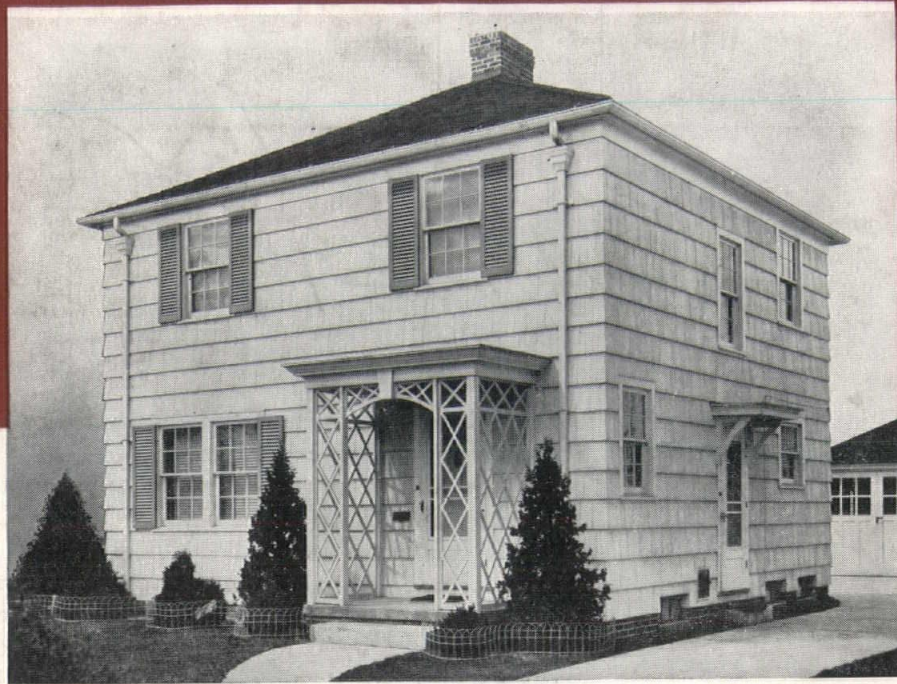
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